

30100

S/137/62/000/003/134/191

A052/A101

10.8200
AUTHORS: Chernenko, I. V., Cherkashin, V. S.

TITLE: The effect of ultrasound on mechanical properties of copper

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 55, abstract 31352
(V sb. "Primeneniye ul'traakust. k issled. veshchestva". Moscow, no. 12, 1960, 141-145)

TEXT: The effect of ultrasonic oscillations of 19.5 kc frequency on mechanical properties of M1 copper within the 20 - 700°C range was studied. For the sound generation a special ultrasonic oscillator with a magnetostriction pickup was used. The tensile tests have shown that beginning from 400°C the strength drops sharply and the elongation reduces since Cu from the plastic state passes over into the brittle one. A longer exposure to ultrasound at the same temperature has a similar effect. A decrease of strength and ductility of Cu is accompanied by the reduction of its microhardness which can be ascribed to the intensified oscillations of the lattice caused by ultrasonic high-frequency oscillations. A study of the microstructure has shown that with the samples exposed to ultrasound at the temperature of < 500°C an increased etchability of

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The effect of ultrasound ...

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grain boundaries and a considerable heterogeneity of grain sizes are observed. An exposure to ultrasound at 600 and 700°C has caused cracks at the grain boundaries. Apparently the oscillations of ultrasonic frequency at higher temperatures affect the change in the structure of grain boundaries and adjacent regions. It is probable that initially at the boundaries vacancies form which in the course of time group into micropores and afterwards overgrow into cracks. The measurement results have shown that the electrical resistance increases with the temperature and the time of ultrasonic exposure. These data confirm the viewpoint on the origin of cracks due to the ultrasonic exposure, since the X-ray analysis has not shown the emergence of any additional stresses in the ultrasound treated samples.

N. Sladkova

[Abstracter's note: Complete translation]

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S/194/62/000/006/119/232
D256/D308

24.1800

AUTHORS: Chernenko, I.V., and Cherkashin, V.S.

TITLE: Effect of ultrasound on mechanical properties of copper

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 6, 1962, abstract 6-5-39 ch (V sb. Primeneniye ul'traakust. k issled. veshchestva, no. 12, M., 1960, 141-145)

TEXT: It is established that the mechanical properties of copper rods, used as sound guides, change considerably in the places exposed to the action of ultrasonic oscillations and high temperature. Specimen of copper wire were soldered to a magnetostrictive vibrator working at 19.5 kc/s, and they were heated up to 700°C during the 20 min. period of vibrating. It was found that red copper passes from plastic to a brittle state as a result of the action of the ultrasound and temperature of about 700°C. Increase of temperature and the time of the exposure to the ultrasound, the strength and the plasticity of copper decreases and its micro-hard-
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JB

Effect of ultrasound on mechanical ... S/194/62/000/006/119/232
D256/D308

ness is reduced. The exposure to the ultrasound of copper at temp. not exceeding 300°C produces a decrease of the strength without reducing the plasticity; no changes in the structure of copper were observed at temp. below 100°C. 4 figures. [Abstracter's note: Complete translation.]

✓B

Card 2/2

CHERNENKO, K.

85-58-6-17/43

AUTHOR: Chernenko, K., Chief, Kaliningradskiy oblastnoy vneshtatnyy
aviasportsklub (Kaliningrad Oblast Independent Aviation Sports
Club) (Kaliningrad)

TITLE: The First Results (Pervyye itogi)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 6, p 12 (USSR)

ABSTRACT: The author describes the activities of Kaliningrad aviation sports-
men who organized their own club and are now able to point to
certain accomplishments in model-airplane building, parachute jump-
ing, and gliding at various local industrial and educational enter-
prises. Personalities mentioned include: M. Vodop'yanov, Hero of
the Soviet Union, M. Koshevoy, Air Force pilot of the Baltic Fleet,
Hero of the Soviet Union; P. Shemendyuk, reserve officer, Hero of
the Soviet Union; I. Belousov, Hero of the Soviet Union.

ASSOCIATION: Kaliningrad Oblast Independent Aviation Sports Club

1. Civil aviation-USSR 2. Parachute jumping

Card 1/1

KOZHIN, Aleksey Ivanovich; CHERMENKO, K.A., otvetstvennyy redaktor;
DOBROVOL'NOVA, T.I., tekhnicheskii redaktor

[In the mountains and valleys of Vietnam] V gorakh i dolinakh
V'etnama. Moskva, Gos. izd-vo detskoi lit-ry Ministerstva prosve-
shcheniia RSFSR, 1956. 157 p. (MIRA 10:1)
(Vietnam—Description and travel)

KAMIR, B.I., otv.red.; KROTOVA, I.I., /otv.red.; CHEERNENKO, K.A., otv.
red.; LEVINSKAYA, N.Z., tekhn.red.

[For the sake of the great goal; address by delegates to the
21st Congress of the CPSU] Radi velokoi tseli; slovo delegatov
XXI s"ezda KPSS. Moskva, Gos.izd-vo detskoi lit-ry M-va prosv.
RSFSR, 1959. 220 p. (MIRA 13:8)
(Russia--Economic policy)

PEREVOSHCHIKOV, Konstantin Alekseyevich; CHERNENKO, K.A., otv. red.;
TISHINA, Z.V., tekhn. red.

[Under the sun of India, a land which is fantastic and ordinary]
Pod solntsem Indii, strany skazochnoi i obyknovnoyi. Moskva,
Gos.izd-vo detskoi lit-ry M-va prosv. RSFSR, 1961. 158 p.
(MIRA 15:2)

(India--Social conditions)

PEREVOSHCHIKOV, Konstantin Alekseyevich; CHERNENKO, K.A., otv. red.;
STRAKHOVA, T.M., tekhn. red.

[In a country of the aroused tropics] V strane probuzhden-
nykh tropikov. Moskva, Detgiz, 1963. 93 p. (MIRA 17:1)

KOKHANENKO, V.V.; PRILEZHAYEVA, N.A.; CHERNENKO, L.A.

Effect of CO on N_2 radiation in a glow discharge. Izv.vys.
ucheb.zav.; fiz. no. 2:73-76 '64. (MIRA 17:6)

1. Sibirskiy fiziko-tekhnicheskii institut pri Tomskom
gosudarstvennom universitete imeni Kuybysheva.

CHERNENKO, L.A.; PRILEZHAYEVA, N.A.

Estimate of the absolute value of the effective cross section of collisions of the second kind in $N_2 + Ar$, $CO + Ar$, and $N_2 + CO$ mixtures based on the molecular band intensification in a glow discharge. Zhur. prikl. spekt. 3 no.1:9-13 J1 '65. (MIRA 18:9)

CHERNENKO, L.A.; MURAV'YEV, I.I.; PRILEZHAYEVA, N.A.

Study of a glow discharge in the mixture Ne + He. Izv. vys. ucheb.
zav.; fiz. 8 no.3:168-169 '65. (MIRA 18:9)

1. Sibirskiy fiziko-tekhnicheskoy institut imeni V.D.Kuznetsova.

1 0213-51 SWT(1) EP(1) 17 TPA(W)-
ACCESSION NR: AP5018839

UR/UM/UT
1985-01

AUTHOR: Chernenko, L. A.; Prilezhayeva, E.

TITLE: Estimate of the absolute values of the second kind in the mixtures $N_2 + A$ of the amplification of the molecular

value of the second kind and $N_2 + A$ in the glow discharge

SOURCE: Zhurnal prikladnoy spektroskopii

1985, 1985, 1985

TOPIC TAGS: sensitized fluorescence, collision, spontaneous emission, excitation

1985, 1985, 1985

ABSTRACT: The absolute effective cross-sections of the second kind were investigated for the case of a glow discharge in a two-component mixture. Under conditions the role of the collisions, for example, by measuring the relative intensity due to component B (in a mixture A + B) in mixtures of different components. The dependence of the intensity and the probability of collisions is calculated. The increase in intensity is proportional to the metastable concentration and

the absolute values of the second kind in the glow discharge are calculated. The results are compared with the experimental data. The absolute values of the second kind in the glow discharge are calculated. The results are compared with the experimental data. The absolute values of the second kind in the glow discharge are calculated. The results are compared with the experimental data.

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L. 62239-55

ACCESSION NR: AP5018839

values obtained for the cross section were 0.8×10^{-15} , 0.8×10^{-15} , 2×10^{-15} ,
and 0.3×10^{-15} for the mixtures $\text{N}_2\text{O} + \text{H}_2$, $\text{N}_2\text{O} + \text{CO}$, $\text{N}_2\text{O} + \text{CH}_4$, and $\text{N}_2\text{O} + \text{C}_2\text{H}_6$.

$$N_2(C^{37})_{y'=0} \rightarrow CO, \text{ and } CO(C^{37})_{y'=0} \rightarrow A$$

agreement with those published by other authors. The probability of collisions of the second kind is analyzed separately for the possible elements of the authors thank V. S. Mel'chenko for his help. has: 2 figures, 5 formulas, and 1 table.

ASSOCIATION: LONE

SUBMITTED 18 Dec 76

RC FILE NO. 002

15

3.

ACC NR: AP6033838

SOURCE CODE: UR/0139/66/000/005/0067/0070

AUTHOR: Chernenko, L. A.

ORG: Siberian Physico-Technical Institute im. V. D. Kuznetsov (Sibirskiy fiziko-tekhnicheskiy institut)

TITLE: The part played by second order impact in the radiation of molecular bands of N₂, and N₂ + Ar and CO + Ar mixtures in a glow discharge

SOURCE: IVUZ. Fizika, no. 5, 1966, 67-70

TOPIC TAGS: glow discharge, impact ionization, argon, carbon monoxide, nitrogen

ABSTRACT: The investigation of second order impacts in glow discharges is complicated by a variety of secondary processes which affect the radiation intensity. To localize the role of second order impacts, the author compared the energy levels of N₂ and Ar in N₂ + Ar, and CO + Ar mixtures; the comparison was made of the intensity of bands exposed to second order impacts and that of bands which behave similarly during excitation but are not exposed to second order impact. By gradually substituting N₂ at a pressure of 2.00 mm Hg by Ar, the partial pressure of Ar was varied from 0 to 1.98 mm Hg. The magnitude of the relative intensity (*I*) was related to the intensity of the same band in pure nitrogen (*I*₀). Thus, the amplification factor

$$\kappa = \frac{I}{I_0} \frac{n_0}{n}$$

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ACC NR: AP6033838

was obtained, where n_0 is the number of particles in pure N_2 and n is the number of particles in the mixture. The amplification factors coincided for bands starting from the same level. The absolute error of the measurement of k is 0.1. The bands which start at the third oscillating level increased more than all other bands; the bands starting at the second level showed a lesser increase. Identical experiments were performed with the CO + Ar mixture, including the measurement of temperature and of the electron concentration in mixtures of various compositions. It was found that $k_{exp} > k_{cal}$, apparently because k_{exp} includes amplifications produced by both: changes in excitation conditions, and changes on account of second order impact. The amplification curve, which is plotted, can be used for calculating the effective cross section of second order impact. The author appreciates the valuable discussions of Professor N. A. Prilezhayeva and Docent V. V. Kokhanenko. Orig. art. has: 2 tables, 3 figure, 1 formula.

SUB CODE: 20/ SUBM DATE: 17Feb65/ ORIG REF: 003/ OTH REF: 004

Cord 2/2

L 272C-66 EWT(1)/EWT(m)/EPA(s)-2/EPF(c)/EPA(w)-2/EWP(t)/EWP(b)/EWA(m)-2
 ACCESSION NR: AP5017191 LYP(c) JD UR/0139/65/000/003/0168/0169

AUTHOR: Chernenko, L. A.; Murav'yev, I. I.; Prilezhayeva, N. A. 44.85 79

TITLE: Investigation of glow discharge in an Ne + He mixture 76 B

SOURCE: IVUZ. Fizika, no. 3, 1965, 168-169

TOPIC TAGS: neon, helium, gas discharge spectroscopy, glow discharge, line intensity, electron temperature

ABSTRACT: The authors investigated the variation of the concentration, electron temperature, and the ratio of the longitudinal electric field to the pressure (E/p), as functions of the partial pressures of the neon and helium in the mixture, using a two-probe method. The variation in the intensity of the individual neon lines and the variation of the population of the 2^1S_0 metastable level of helium were also measured. The results are tabulated. They show that the electron temperature increases with increasing helium content, so that the changes in the neon-line intensities are due not only to impacts of the second kind, but also to a change in the excitation condition. The added ionization to the presence of a second gas increases with decreasing E/p ratio. The observed decrease of the metastable level population with increasing helium content is due to a decrease in the electron temperature and to the action of impacts of the second kind. The data will be used

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L 2720-66

ACCESSION NR: AP5017191

in a future article to estimate the absolute cross sections of impacts of the second kind in the Ne-He mixture. Orig. art. has: 3 tables.

ASSOCIATION: Sibirskiy fiziko-tehnicheskii institut imeni V. D. Kuznetsova
(Siberian Physicotechnical Institute)

SUBMITTED: 22Apr64

44, 55
ENCL: 00

SUB CODE: ME, EM

NR REF SOV: 006

OTHER: 002

mlr
Card 2/2

CHERNENKO, I.D.; ZAILOGIN, N.S.

Public inspection of the introduction of advanced practices and
the organization of information work in Ukrainian enterprises
and institutions. NTI no.12:7-8 '64.

(MIRA 18:3)

BELYANKIN, F.P., otv. red.; BEZUGLIY, V.D., red.; GROZIN, B.D., red.; DRAYGOR, D.A., red.; GURARIY, M.G., red.; LOGAK, N.S., red.; MITSKEVICH, Z.A., red.; PESIN, L.M., red.; RYBICHEVSKIY, Yu.S., red.; CHERNENKO, L.D., red.; YATSENKO, V.F., red.; KUDRYAVTSEV, G., red.; LUPANDIN, I., red.; SHAFETA, S., tekhn. red.

[Use of plastics in the manufacture of machinery and instruments]
Plastmassy v mashinostroenii i priborostroenii. Kiev, Gos. izd-vo
tekhn. lit-ry USSR, 1961. 573 p. (MIRA 14:12)
(Plastics) (Machinery industry) (Instrument manufacture)

CHERNENKO, L.D.; SHTEPAN, Ya.G.; LOKTEVA, V.A., red.;
PONOMAR VA, L.I., tekhn. red.

[Mechanization of hoisting and conveying in industrial enterprises abroad] Mekhanizatsiia pod"emno-transportnykh rabot promyshlennykh predpriatii; zarubezhnyi opyt. Kiev, In-t tekhn. informatsii, 1963. 304 p.

(MIRA 16:11)

(Hoisting machinery) (Conveying machinery)

L 57734-65 FWT(3)/EWT(m)/EWP(w)/EWA(d)/EDT(T)/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c)
 57734 EWT(3)/EWT(m)
 U.S.S.R.
 670.178.3
 ACCESSION NR: AP5017094

AUTHOR: Pisarenko, G. S.; Chernenko, V. I.; Myazinov, B. A.

TITLE: Fatigue limit of axle steel in the forced-fit zone at low temperatures

SOURCE: Zavodskaya laboratoriya, v. 1, no. 1, 1965, 55-60.

TOPIC TAGS: fatigue limit, axle steel, loading machine, stress concentration, ening

ABSTRACT: The fatigue characteristics of metal with stress concentration in the forced-fit zone at low temperatures have so far been relatively uninvestigated. In most cases this is due to the experimental difficulties and the lack of apparatus that could assure the required number of dynamically loaded specimens. Such problems as the effect of the strength of steel in the forced-fit zone operating at normal and low temperatures, that surface hardening is an effective method

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working of elements that have stress loads. In this connection, the authors tested hardened and nonhardened specimens of 0.14 Ni, 0.184 Cu, 0.027% S, and other elements at various temperatures. The specimens were of different diameters and had stress concentrations in their forced-fit zone.

Nonhardened specimens of the same diameter with annular grooves also were tested. The specimens were heat-treated by the standard method used in the manufacture of automotive axles and cold-worked by means of a special three-roll lathe attachment. Their fatigue tests were then performed with a special cooling system for the specimens. The findings showed that the method of cold working markedly affects the fatigue strength of the forced-fit zone. Hardened specimens tested at the temperature decreased to -60°C showed a marked increase in the fatigue strength. The number of loading cycles was somewhat higher than that obtained with any other type of treatment. Thus, the increase in the fatigue strength at low temperatures still remains.

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ACCESSION NR: AP5017094

change in the fatigue limit is preceded by a series of factors of a technological nature. The positive influence of the effect on endurance in the zone of high overloads also is incontestable.

ASSOCIATION: Institut problem mater
for the Study of Materials, Academy

Academy of Sciences
USSR

SUBMITTED: 00

MR RKF BOV: 002

Card 3/3

C. M. CHERNENKO, U. Ye.

2

Filtration analysis and characterization of the structure of suspensions and sediments. L. B. Chernenko and P. A. Rebinder (Technol. Inst. Food Ind., Moscow). *Kolloid. Zhur.* 12, 286-31 (1950).—If a suspension contg. c g./cc. solids is filtered, the amt. of the ppt. is cV after a vol. V has passed through. If the amt. cV occupies the vol. αcV and the area of the filter is S , the thickness h of the ppt. is $\alpha V/S$. From Darcy's equation, then, $dV/dt = KSp/\eta \alpha cV$; t is time, p driving pressure, and η viscosity. Hence, $V^2 = 2KS^2p/\eta \alpha c$. The proportionality between V^2 and t

was confirmed by filtering suspensions of rye flour and clay in H_2O , and of ZnO in toluene. If the porosity of the ppt. changes during filtration the exponent at V differs from 2. The ratio KSp/α is characteristic for a given solid; $\log(\alpha/KS)$ was 8.3-8.5 for rye flour between c 0.10 and 0.18. The value of K can be found by filtering pure dispersion liquid through the ppt. (i.e. at const. h). Then also α can be detd., and from it the porosity of the ppt. can be calcd. J. J. Bikerman

MARKOVICH, V.Ye.; CHERNENKO, I.Ye.

Effect of the dispersion medium and of surface-active substances on the plastic strength of structured suspensions of the type of the chocolate paste. Kolloid. Zhur. 15, 204-7 '53. (MLRA 6:5)
(CA 47 no.18:9520 '53)

1. Technol. Inst. Food Ind. , Moscow.

SECRET
SUBSTANTIAL
VIEW OF THE
COUNTRY

CHERNENKO, L.Ye.; RYABCHIKOVA, G.G. /

Study of the jelling capacity of agar and pectin. Izv.vys.ucheb.
zav.pishch.tekh. no.4:25-29 '58. (MIRA 11:11)

1. Moskovskiy tekhnologicheskii institut pishchevoy promyshlennosti,
Kafedra neorganicheskoy khimii.
(Agar) (Pectin)

PETROV, N.A.; CHERNENKO, L.Ye.; MARKOVICH, V.E.

Effect of emulsifiers on sturcture formation in margarine emulsions.
Izv.vys.ucheb.zav.;pishch.tekh. no.5:39-42 '58. (MIRA 11:12)

1. Moskovskiy tekhnologicheskoy institut pishchevoy promysh-
lennosti, kafedra neorganicheskoy khimii.
(Oleomargarine) (Emulsifying agents):

CHERNENKO, L.Ye.; MARKOVICH, V.E.

Sedimentary compaction of the chocolate mass. Izv.vys.ucheb.
zav.; pishch.tekh. no.5:142-145 '58. (MIRA 11:12)

1. Moskovskiy tekhnologicheskoy institut pishchevoy promyshlennosti, kafedra neorganicheskoy khimii.
(Chocolate)

PETROV, N.A.; CHERNENKO, L. Ye.; MARKOVICH, V.E.

Investigating the kinetics of dewatering of emulsions. Izv.vys.
ucheb.zav.; pishch.tekh. no.1:99-103 '60. (MIRA 13:6)

1. Kafedra neorganicheskoy khimii Moskovskogo tekhnologicheskogo
instituta pishchevoy promyshlennosti.
(Emulsions)

S/020/60/134/003/031/033/XX
B004/B064

AUTHORS: Oreshko, V. F., Chernenko, L. Ye., and Shakhova, N. G.

TITLE: The Effect of Ionizing Gamma Radiation Upon the
Structural and Mechanical Properties of Starch Gelatins

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 3,
pp. 636 - 638

TEXT: The authors studied the effect of Co^{60} gamma radiation (dose varying from $1 \cdot 10^6$ to $18.2 \cdot 10^6$ r) upon the strength of starch gelatins. Potato starch with a moisture content of 16.6% was used for the experiment. After irradiation in glass ampoules, gelatins containing 12% of dry starch were produced, and the limiting shearing stress P_m was determined by means of a plastometer. Fig. 1 shows P_m as a function of time and Fig. 2 P_m as a function of the dose. The ionizing radiation first caused an increase in P_m , then a reduction growing in proportion with the increasing dose, so that at $7.1 \cdot 10^6$ r, P_m amounted to 3 g/cm^2 only, and

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The Effect of Ionizing Gamma Radiation
Upon the Structural and Mechanical
Properties of Starch Gelatins

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at $18.2 \cdot 10^6$ r no gelatin formed any more. The course of the curve $P_m = f(D)$ (Fig.2) which passes through a maximum, is determined by the change of the number of hydroxyl groups available for the formation of hydrogen bridges. First, radiation effects depolymerization. Thus, screened off OH groups are set free, which form additional hydrogen bridges and increase P_m . Then, the OH groups are, however, split off under the formation of gaseous products. Assuming a direct proportionality between P_m and the number of H bridges, the authors write down equation (5): $P_m = P_m^0 + (k\kappa/2)(\bar{M}_0 D)/(N_0 \epsilon_d) - (k\kappa/4)(q\bar{M}_0/N_0 \epsilon_d)D^2$. P_m^0 is the limiting shearing stress of the non-irradiated gelatin, $\bar{M}_0$ its average molecular weight, N_0 the Avogadro number, ϵ_d the energy necessary for the rupture of a formation, D the radiation dose, κ the number of screened OH groups set free in each rupture of the molecule, k and q are coefficients. The function $(P_m - P_m^0)/D$, which is, also shown in Fig. 2, shows a linear course from $1 \cdot 10^6$ to $4 \cdot 10^6$ r, thus

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The Effect of Ionizing Gamma Radiation
Upon the Structural and Mechanical
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confirming the applicability of equation (5). The maximum of $P_m = f(D)$ lies at $1/q = 1.85 \cdot 10^6$ r; k_m equals 20.8 on the assumption of a molecular weight of 462,000; $\epsilon_d = 26$ ev. According to V. F. Oreshko and K. A. Korotchenko (Ref.1), Fig.2 also shows $\bar{M}$ as a function of the dose. At $4 - 5 \cdot 10^6$ r, $\bar{M}$ falls to 1/10 of its original value. The authors mention a paper by Yu. S. Zuyev. There are 2 figures and 4 references: 3 Soviet and 1 German.

ASSOCIATION: Moskovskiy tekhnologicheskii institut pishchevoy promyshlennosti (Moscow Technological Institute of the Food Industry) ✓

PRESENTED: March 18, 1960, by P. A. Rebinder, Academician

SUBMITTED: February 4, 1960

Card 3/3

ORESHKO, V. F. [deceased]; GORIN, L. F.; KOROTCHENKO, K. A.; MASLOVA,
G. M.; CHERNENKO, L. Ye.; SHAKHOVA, N. G.

Radiation chemistry of starch. Izv. vys. ucheb. zav.; pishch.
tekh. no. 5:32-37 '62. (MIRA 15:10)

1. Moskovskiy tekhnologicheskii institut pishchevoy promysh-
lennosti, kafedra neorganicheskoy khimii.

(Starch) (Radiochemistry)

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CHERNENKO, M. A.

✓ Accurate defining basic open-hearth-furnace characteristics and improving their construction. M. A. Chernenko. Stal' 15, 226-37 (1955) - Basic structural characteristics of the furnaces are reviewed and their changes and the best results suggested. 116

KOROLEV, A.I.; BLINOV, S.T.; IUBENETS, I.A.; KOBURNEYEV, I.M.; TURUBINER, A.L.; VASIL'YEV, S.V.; CHERNENKO, M.A.; BELOV, I.V.; TELESOV, S.A.; MAZOV, V.F.; MEDVEDEV, V.A.; MAL'KOV, V.G.; BUL'SKIY, M.T.; TRUBETSKOV, K.M.; SHNEYEROV, Ya.A.; SLADKOSHTEYEV, V.T.; PALANT, V.I.; KUROCHKIN, B.N.; ZHDANOV, A.M.; BELIKOV, K.N.; SABIYEV, M.P.; GARBUZ, G.A.; PODGORETSKIY, A.A.; ALFEROV, K.S.; NOVOLODSKIY, P.I.; MOROZOV, A.N.; VASIL'YEV, A.N.; MARAKHOVSKIY, I.S.; MALAKH, A.V.; VERKHOVTSYEV, E.V.; AGAPOV, V.F.; VECHER, N.A.; PASTUKHOV, A.I.; BORODULIN, A.I.; VAYNSHTEYN, O.Ya.; ZHIGULIN, V.I.; DIKSHTEYN, Ye.I.; KLIMASENKO, L.S.; KOTIN, A.S.; MOLOTKOV, N.A.; SIVERSKIY, M.V.; ZHIDETSKIY, D.P.; MIKHAYLETS, N.S.; SLEPKANEV, P.N.; ZAVODCHIKOV, N.G.; GUDENCHUK, V.A.; NAZAROV, P.M.; SAVOS'KIN, M.Ye.; NIKOLAYEV, A.S.

Reports (brief annotations). Biml. TSNIICM no.18/19:36-39 '57.

(MIRA 11:4)

1. Magnitogorskiy metallurgicheskiy kombinat (for Korolev, Belikov, Agapov, Dikshiteyn). 2. Kuznetskiy metallurgicheskiy kombinat (for Blinov, Vasil'yev, A.N., Borodulin, Klimasenko). 3. Chelyabinskiy metallurgicheskiy zavod (for Iubenets, Vaynshteyn). 4. Zavod im. Dzerzhinskogo (for Koburneyev). 5. Zavod "Zaporozhstal'" (for Turubiner, Mazov, Podgoretskiy, Marakhovski, Savos'kin). 6. Makeyevskiy metallurgicheskiy zavod (for Vasil'yev, S.V., Mal'kov, Zhidetskiy, Al'ferov). 7. Stal'proyekt (for Chernenko, Zhdanov, Zavodchikov). 8. VNIIT (for Belov). 9. Stalinskiy metallurgicheskiy zavod (for Telesov, Malakh).

(Continued on next card)

KOROLEV, A.I.---(continued) Card 2.

10. Nizhne-Tagil'skiy metallurgicheskiy kombinat (for Medvedev, Novolodskiy, Vecher). 11. Zavod "Azovstal'" (for Bul'skiy, Slepkanov). 12. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (for Trubetskov). 13. Ukrainskiy institut metallov (for Smeyerov, Sladkovskiy, Kotin). 14. Zavod "Krasnyy Oktyabr'" (for Palant). 15. Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy teplotekhniki (for Kurochkin). 16. Zavod im. Voroshilova (for Sabiyev). 17. Chelyabinskii politekhnicheskii institut (for Morozov). 18. Giprostal' (for Garbuz). 19. Ural'skiy institut chernykh metallov (for Pastukhov). 20. Zavod im. Petrovskogo (for Zhigulin). 21. Ministerstvo chernoy metallurgii USSR (for Molotkov, Siverskiy). 22. Glavspetsstal' Ministerstva chernoy metallurgii SSSR (for Nikolayev).
(Open-hearth process)

137-58-6-11732

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 74 (USSR)

AUTHOR: Chernenko, M.A.

TITLE: Improvement of Open-hearth Furnace Design (Uluchsheniye konstruktsiy martenovskikh pechey)

PERIODICAL: Tr. Nauchno-tekhn. o-va chernoy metallurgii, 1957, Vol 18, pp 258-268

ABSTRACT: The following fundamental suggestions on improvement of open-hearth furnace design, service life, and output are advanced. Preliminary steam-and-oxygen blow of the pig iron in the ladle to diminish [Si] reduces slag production in open-hearth conversion, thus easing the stresses borne by open-hearth masonry. Replacement of mixed gas by cold gas of high heat value permits significant simplification of open-hearth furnace design, reducing the necessary capital investment by approximately 25%. Further improvement of port design is necessary, with the blowing of hot air into the gas port; this increases the velocity of the gas flow and improves the heating thereof. An experimental check has to be made of the desirability of increasing the span of the front wall of the furnace.

Card 1/2

137-58-6-11732

Improvement of Open-hearth Furnace Design

as well as tests of designs of the furnace proper with suspended, inward-sloping walls, and without any front wall at all. In the field of mechanization of slag-pocket cleaning, employment of the raking machine designed by Stal'proyekt, which makes it possible to remove the slag every 50 to 100 heats without stopping the furnace, offers good possibilities. Production of shaped magnesite-chromite refractories should be set up to increase the service life of roofs and of the walls between slag pockets and regenerators, oval checker brick should also be made available to reduce dust precipitation in the checkers. For furnaces to be heated by high-grade fuel, it is necessary to work out the designs of supplementary heat exchangers to increase the temperature to which the air is heated, and also the design of suspended uptakes and flat suspended roofs for slag pockets and regenerators, making for more uniform deposition of slag in the slag pockets and for distribution of flue gases across the checker cross section. In view of the economic advantages of 500-t open-hearth furnaces, the design of 700-t furnaces should be begun.

1. Open hearth furnaces--Design
 2. Open hearth furnaces--Operation
 3. Open hearth furnaces--Materials
- A.D.

Card 2/2

CHERNENKO, M. A.

PHASE I BOOK EXPLOITATION

SOV/3642

Lychagin, Aleksey Sergeyevich, and Mikhail Avksent'yevich Chernenko

Razvitiye konstruktsiy martenovskikh pechey (Development of Open-Hearth Furnace Construction) Moscow, Metallurgizdat, 1960. 52 p. Errata slip inserted.
2,150 copies printed.

Ed.: A. Ye. Livshits; Ed. of Publishing House: A. A. Vagin; Tech. Ed.:
M. R. Kleyzman.

PURPOSE: This book is intended for workers in metallurgical plants and planning organizations. It may also be used by students of metallurgical institutes and technikums.

COVERAGE: The book contains a brief description of modern open-hearth furnace design and an analysis of methods of increasing productivity. The basic trends in design improvements for automation, repair work, and preassembly of sections are discussed. The advances to be made in open-hearth construction are also treated. No personalities are mentioned. There are 9 references, all Soviet.

Card 1/3

Development of Open-Hearth (Cont.)

80V/3642

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Development of Open-Hearth (Cont.)

80V/3642

"Block" Construction [Preassembly of Sections of a Furnace] and Accelerated Repairs

42

Outlook for the Development of Furnace Design

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Bibliography

52

AVAILABLE: Library of Congress

Card 3/3

VK/PW/sal
7-11-60

MANTSEV, Roman Mikhaylovich; CHERNENKO, Mikhail Avksent'yevich;
CHEREPAKHIN, Gennadiy Akimovich; LEVITIN, Solomon
Solomonovich

[Open-hearth furnaces; an atlas] Martenovskie pechi; atlas.
Moskva, Metallurgiya, 1965. 177 p. (MIRA 18:8)

CHERNENKO, M.B., referent, gornyy inzhener.

Air conditioning in the mining industry abroad (from "Berg-
bauwissenschaften," no.8, 1955). Gor.zhur.no.10:58-60 0 '56.
(Mines and mineral resources--Air conditioning) (MLRA 9:12)

CHERNENKO, M.B.; LUKIN, Yu.B.; GUSEV, K.M.; KUDREVATYKH, L.A.; MAKARENKO,
Ya.I.; SATYUKOV, P.A., red.; STEPANOV, V.P., red.; SELYUK, S.I., red.;
SUTOTSKIY, S.B., red.; ABALKIN, N.A., red.; KOZEV, N.A., red.; AVER-
CHENKO, B.Ye., red.; SOBOLEV, L.S., red.; SIMONOV, K.M., red.; POLE-
VOY, B.N., red.; GALIN, B.A., red.

[Heroes of our times] Geroi nashikh dnei. Moskva, Izd. gazety
"Pravda," 1961. 619 p. (MIRA 14:11)
(Labor and laboring classes)

CHERNENKO, M. (Lt Col), Active Member of the GEOGRAPHIC SOCIETY USSR

Author of article, "On the 88th Parallel," concerning life on the floating ice island,
North Pole 3.

(Sovetskaya Kul'tura, Moscow, 7 Aug 54)

SO: SUM 265, 10 Nov 1954

~~CHERNENKO, M. B.~~
USSR/Geography - Arctic life

Card 1/1 : Pub. 86 - 8/46

Authors : Chernenko, M. B., and Agranat, G. A.

Title : Expedition of Lieutenant L. A. Zagoskin in Russian America

Periodical : Priroda, 43/9, 56-62, Sep 1954

Abstract : A book is discussed which was published by Lieutenant L. A. Zagoskin 107 years ago. In it Zagoskin describes his travels on foot in Alaska. His account covers not only the characteristics and customs of the natives, topography and climate, but also the activities of the white traders in the region. Map; illustration.

Institution :

Submitted :

CHERNENKO, M.B.

~~CHERNENKO, M.B.~~

Famous polar explorer. Priroda 44 no.8:67-74 Ag '55. (MIRA 8:10)
(Hansen, Fridtjof, 1861-1930)

BNIOV, Mikhail Ivanovich, kandidat istoricheskikh nauk, starshiy nauchnyy
sotrudnik; GAKKEL', Ya.Ya, professor, doktor istoricheskikh nauk,
redaktor; OKLADNIKOV, A.P., professor, doktor istoricheskikh nauk,
redaktor; CHERNENKO, M.B., redaktor; DIZHUR, I.M., redaktor izda-
tel'stva; TIKHONOVA, Ye.M., tekhnicheskikh redaktor

[History of the discovery and use of the North Sea route] Istoriia
otkrytiia i osvoyeniia Severnogo morskogo puti. Moskva, Izd-vo
"Morskoi transport." Vol.1. [Arctic voyages from ancient times to the
middle of the 19th century] Arkticheskoe moreplavanie s drevneishikh
vremen do sere diny XIX veka. 591 p. (MIRA 9:12)

1. Leningrad. Arkticheskii nauchno-issledovatel'skiy institut.
2. Uchenyy sekretar' Komissii po problemam Severa Akademii nauk SSSR
(for Chernenko)
(Northeast passage)

ZAGOSKIN, Lavrentiy Aleksandrovich, leytenant; CHERNENKO, M.B., redaktor;
AGRAHAT, G.A., redaktor; BLOMQUIST, Ye.E., redaktor; VORONTSOVA,
A.N., redaktor; GLEYKH, D.A., tekhnicheskij redaktor.

[Voyages and explorations of Lieutenant Lavrentii Zagoskin in
Russian America during the period of 1842-1844] Puteshestviia i
issledovaniia Leitenanta Lavrentiia Zagoskina v russkoy Amerike
v 1842-1844 gg. Moskva, Gos.izd-vo geogr. lit-ry, 1956. 453 p.
(MIRA 9:5)

(Zagoskin, Lavrentii Alekseevich, 1807-1890) (North America--
Discovery and explorations)

BELOV, Mikhail Ivanovich; GAKKEL', Ya.Ya., red.; OKLADNIKOVA, A.P., red.;
CHERNENKO, M.B., red.

[Arctic voyages from ancient times to the middle of the 19th
century] Arkticheskoe moreplavanie s drevneishikh vremen do
serediny XIX veka. Morskoi transport, 1956. 591 p.

(MIRA 12:2)

(Arctic regions--Voyages and travels)

CHERNENKO, M. B.

CHERNENKO, M. B.

Journeys through the Chukchi Peninsula and the voyage to Alaska by
the Cossack sotnik Ivan Kobelev in 1779 and 1789-1791. Ist. Sev.
2:121-141 '57. (MIRA 10:12)

(Kobelev, Ivan, fl. 18th cent.)
(Chukchi Peninsula--Description and travel)
(Alaska)

CHERNENKO, M.B.
CHERNENKO, M.B.

For the biography of the first polar aviator IA.I. Nagurskii.
Ist. Sev. 2:150-154 '57. (MIRA 10:12)

1. Komissiya po problemam Severa AN SSSR.
(Nagurskii, IAn Iosifovich, 1888-)

CHERNENKO, M. B.,

"Travels in 'Chukotskaya Zemlya' and the Voyage to Alaska by the Cossack Lieutenant Ivan Kobelev in 1779 and 1789-91," Chronicles of the North; Yearbook of Historical Geography, History of Geographical Discoveries and Exploration of the North) v. 2, Moscow, Geografiz, 1957. 279 p. (Akademiya nauk SSSR. Kommissiya po problemam Severa).

Editorial Board: Andreyev, A. I., Belov, M. I., Burkhanov, V. F., Yefimov, A. V. (Resp. Ed.), Chernenko, M. B. (Deputy Resp. Ed.) and Shcherbakov, D. I.; Ed.: Vorontsova, A. I.; Tech. Ed.: Kosheleva, S. M.; Map. Ed.: Mal'chevskiy, G. N.

PURPOSE: The book is intended for readers interested in the Soviet Arctic.

COVERAGE: The present volume, the second of a series of three, is a collection of 27 articles by various authors presenting an historical account of the exploration and economic development of the Soviet North. A small part of the book is devoted to Arctic areas beyond the confines of the Soviet Union. The Aim of the book is to contribute to an understanding of the physical geography, cartography, ethnography, and economy of the Soviet North through a historical survey of these factors. A large number of authors explorers, scientists, travelers, pilots, navigators, etc. are cited.

"Materials for the Biography of Ya. I. Nagurskiy, First Polar Aviator." p. 150.

CHERNENKO, M.

Looking at a map of the country. Sov.profsoluziy 5 no.10:14-21
0 '57. (MIRA 10:9)

(Russia--Industries)

BELOV, Mikhail Ivanovich, doktor istor.nauk, starshiy nauchnyy sotrudnik;
Prinimale uchastiye BASHMURINA, N.I., mladshiy nauchnyy sotrudnik.
GAKKEL', Ya.Ya., prof., doktor geograf.nauk, red.; CHERNENKO, M.B.,
red.; FRISHMAN, Z.S., red.izd-va; KOTLYAKOVA, O.I., tekhn.red.

[History of the discovery and development of the northern route]
Istoriia otkrytiia i osvoeniia Severnogo morskogo puti. Leningrad,
Izd-vo "Morskoi transport." Vol.3. [Soviet arctic navigation]
Sovetskoe arkticheskoe moreplavanie, 1917-1932 g.g. Pod red. I.A.IA.
Gakkelia i M.B.Chernenko. 1959. 509 p. (MIRA 13:4)

1. Leningrad. Arkticheskii nauchno-issledovatel'skiy institut.
2. Arkticheskii i antarkticheskii nauchno-issledovatel'skiy institut (for Belov).

(Russia, Northern--Discovery and exploration)

14(5)
AUTHORS: SOV/127-59-2-19/21
Berezin, A.I., and Chernenko, M.B., Mining Engineers
TITLE: The Readers' Conference of the Gornyy Zhurnal in
Almalyk (Konferentsiya chitateley Gornogo zhurnala
v Almalyke).
PERIODICAL: Gornyy zhurnal, 1959, Nr 2, p 77 (USSR)
ABSTRACT: The readers of Gornyy zhurnal working at the lead
and zinc combine of Altyn-Topkan (~~Tashkentskiy~~
~~Sovmarkhoz~~) met at a conference in November 1958.
They are satisfied with the journal but would like
to read more about some questions, e.g. about more
efficient methods to drift rising workings, and es-
pecially about all questions concerning open pits.

Card 1/1

AUTHOR: Chernenko, M.B. (Moscow) SOV/26-59-1-24/34

TITLE: The Utilization of the Natural Riches of East Siberia
(Osvoyeniye prirodnykh bogatstv vostochnoy Sibiri)

PERIODICAL: Priroda, 1959,⁴⁸ Nr 1, pp 91 - 102 (USSR)

ABSTRACT: The article begins with a brief geographical and geological appraisal of East Siberia and considers the industrial utilization of its natural riches. These riches and their sites of occurrence are then described in detail (chart 1). They include over 6 trillion tons of coal, 800 billion kwh of potential hydroelectric energy, over 4.5 billion tons of hematite and 1.7 billion tons of magnetite and still many more iron ores to be discovered, three times more bauxites than ~~exist~~ in all other Soviet territories, light and non-ferrous metals, gold, mineral salts, and over 300 million hectares of forests with an annual accretion of 300 million cubic m. In order to place these natural riches at the disposal of USSR economic development, six regional conferences of

Card 1/3

SOV/26-59-1-24/34

• The Utilization of the Natural Riches of East Siberia

5,690 Soviet scientists and specialists were held in autumn 1958. New economic regions centered in Krasnoyarsk, Irkutsk, Chita, Yakutsk, Ulan-Ude and Kyzyl were organized. The establishment of a third metallurgical base of the USSR in East Siberia was one of the principal topics of the conferences, with numerous suggestions concerning the expansion of already existing sites and the installation of new ones (chart 2). Similar projects on existing and future thermal and hydro-power plants and unified power grids (chart 3) were discussed. Professor A.Ye. Probst's calculations on the advantages of iron smelting in electric furnaces influenced these plans greatly. A new gigantic chemical industry will also be established. All these plans and their gradual materialization will require the shifting of large numbers of people from other Soviet territories to

Card 2/3

SOV/26-59-1-24/34

The Utilization of the Natural Riches of East Siberia

the new sites. According to the estimate of Corresponding Member, AS USSR, V.I. Veyts, East Siberia will produce about 3/4 of the All-Union production of aluminum, over 4/5 of magnesium and titanium, more than 50% of the ferro alloys, chlorine and artificial fibers within the next 15 to 20 years. There are 8 photos, 3 charts, and 1 diagram.

Card 3/3

BALKIN, N.A., otv. za vypusk; AZIZYAN, A.K., otv. za vypusk;
DUBROVIN, B.A., otv. za vypus; REUT, V.F., otv. za vypusk;
CHERNENKO, M.B., otv. za vypusk; NOVIKOVA, L.D., tekhn.
~~red.~~; MASLENNIKOV, V.V., tekhn. red.; SHUMAN, L.I., tekhn.
red.

[Earth-space-earth] Zemlia - kosmos - Zemlia; sbornik materialov, opublikovannykh v gazete "Pravda." Moskva, 1962.
95 p. (MIRA 15:7)

(Nikolaev, Andriian Grigor'evich, 1929-)
(Popovich, Pavel Romanovich, 1930-)

KOROBOV, P.I.; KHLIBNIKOV, V.B.; BORISOV, A.F.; SROCHINSKIY, A.A.; SHEVYAKOV, L.D.; MEL'NIKOV, N.V.; MELESNIKIN, S.M.; MOSKAL'KOV, Ye.F.; POKROVSKIY, N.A.; KAPLENOV, R.P.; BOGOLYUBOV, E.P.; ANUTYUNOV, N.B.; BOYKO, V.Ye.; BRINZA, N.M.; FEDOROV, V.F.; AGOSHKOV, M.I.; BARONENKOV, A.V.; VORONIN, L.N.; IPATOV, P.M.; MAZAROV, P.P.; SLUTSKAYA, O.M.; CHERNENKO, M.B.; RABINOVICH, V.I.; SEMENSKIY, V.N.; TROITSKIY, A.V.; GOL'DIN, Ya.A.; DZHAPARIDZE, Ye.A.; ZHURAVLEV, S.P.; KUZNETSOV, K.K.; MALEVICH, N.A.; MARINENKO, M.P.; MARTYNOV, G.P.; NATANOV, P.F.; PENTSEV, M.A.; ROSSMIT, A.F.; RYASHOV, A.A.; SOSEDOV, O.O.; VILCHADOV, V.S.; ZUBAREV, S.N.; SHAFARENKO, I.P.

Nikolai Nikolaevich Patrikeev; an obituary. Gor.zhur. no.6:76 Je '60. (MIRA 14:2)

(Patrikeev, Nikolai Nikolaevich, 1890-1960)

PINKHENSON, Dmitriy Moiseyevich, kand. geogr. nauk, dots.; GAKKEL',
Ya.Ya., doktor geogr. nauk, prof., red.; CHERNENKO, M.B.,
red.; FRISHMAN, Z.S., red.izd-va; KOTLYAKOVA, O.I., tekhn.
red.

[History of the discovery and adoption of the Northeast Pas-
sage] Istoriia otkrytiia i osvoeniia Severnogo morskogo puti.
Leningrad, Izd-vo "Morskoi transport." Vol.2. [Northeast Pas-
sage in the period of capitalism] Problema Severnogo morskogo
puti v epokhu kapitalizma. Pod red. IA.IA.Gakkelia, M.B.
Chernenko. 1962. 765 p. (MIRA 17:3)

1. Leningrad. Arkticheskiy nauchno-issledovatel'skiy institut.
2. Deystvitel'nyy chlen Geograficheskogo obshchestva SSSR (for
Chernenko)

GEYMAN, Leonid Mikhaylovich; SAL'TSOVSKIY, Mark Samsonovich;
YUMATOV, B.P., doktor tekhn. nauk, otv. red.; CHERNENKO,
M.B., red.; KLYAUS, Ye.M., red.izd-va; ASTAF'YEVA, G.A.,
tekhn. red.

[In the valleys of golden sand] V dolinakh zolotogo peska.
Moskva, Izd-vo AN SSSR, 1963. 159 p. (MIRA 17:1)

PHASE I BOOK EXPLOITATION

SOV/6450

Chernenko, M.B., A.K. Azizyan, V.F. Reut, and B.A. Dubrovin, eds.

V kosmose Nikolayev i Popovich; kniga o besprimernom gruppovom polete
vokrug Zemli kosmicheskikh korabley "Vostok-3" i "Vostok-4"
(Nikolayev and Popovich in Space; A Book on the Unprecedented Group
Flight of the Spaceships "Vostok-3" and "Vostok-4" around the
Earth) [Moscow] "Pravda", 1963. 495 p. 50,000 copies printed.

Tech. Ed.: V.V. Maslennikov.

PURPOSE: This book is intended to acquaint the general reading public
with the various phases and results of the Nikolayev and Popovich
flights.

DOVERAGE: The book covers many facets of the Vostok-3 and Vostok-4
flights as reported in TASS, official documents, press conferences,
articles, interviews, etc. The material ranges from official
flight-progress reports to poetic eulogies of the cosmonauts and
their flights. Many photographs and illustrations are included.

Card 1/8

CHERNENKO, N. I.

"Investigation of the Spreading of Plastic Deformation Under
a Longitudinal Impact." Cand Tech Sci, Leningrad Polytechnic Inst,
Leningrad, 1954. (RZhTekh, Sep 54)

SO: Sum 432, 29 Mar 55

"APPROVED FOR RELEASE: 06/12/2000 CIA-RDP86-00513R000308510006-8

CHERNENKO, M. I.

Chernenko, M. I. and Brobashevskaya, L. M. - "The Rh-factor in human blood", Vracheb. delo, 1949, No. 4, paragraphs 305-08.

SO: U-4329, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 21, 1949).

APPROVED FOR RELEASE: 06/12/2000 CIA-RDP86-00513R000308510006-8"

KRAINSKAYA-IGNATOVA, V.N.; CHERNENKO, M.I.; DROBASHEVSKAYA, L.M.;
RESHETNYAK, K.K.

Method of investigating iso-immune antibodies in human blood serum;
author's abstract. Zhur.mikrobiol.epid.i immun. no.3:50-51 Mr '54.
(MIRA 7:4)

1. Iz Ukrainakogo instituta perelivaniya krovi (direktor - starshiy
nauchnyy sotrudnik Yu.Tsarlenko). (Rh factor)

KRAINSKAYA-IGNATOVA, V.N., professor; ORLENKO, Yu.M., starshiy nauchnyy
sotrudnik; CHERNENKO, M.I., starshiy nauchnyy sotrudnik

Cross reaction to individual blood compatibility and its role in
the detection of isosensitization of the recipient. Vop.pereb.krovi
4:89-96 '55. (MIRA 9:12)

(BLOOD--TRANSFUSION)

KRAINSKAYA-IGNATOVA, V.N., professor; ~~CHERNENKO, M.I.~~, starshiy nauchnyy
sotrudnik

Studying methods for the prevention of anaphylactic reactions in
transfusions of some heterogenous serum compounds. Vop.perel.krovi
4:97-104 '55. (MIRA 9:12)
(ANAPHYLAXIS) (SERUM) (BLOOD--TRANSFUSION)

ALEKSEYEVA, Ye.F.; KIRILLOV, V.V.; LYATKOVSKAYA, N.M.; MALYSHEVA, T.D.;
ORLOV, V.M.; STEPANOV, A.S.; KHROPOVA, P.M.; CHERNENKO, M.I.;
GRAMMAKOV, A.G., prof., red.; SMIRNOV, P.S., tekhn. red.

[Manual on exercises in physics] Posobie k uprazhneniam po fizike.
Leningrad, Leningr. elektrotekhn. in-t im. V.I.Ul'ianova (Lenina).
Part. 1. [Mechanics. Molecular physics] Mekhanika, Molekuliarnaya
fizika. Sost. E.F.Alekseeva i dr. 1960. 75 p. (MIRA 14:10)
(Physics--Problems, excercises, etc.)

CHERNENKO, M.I.

Plastic longitudinal shock. Izv.vys.ucheb.zav.;fiz. no.2:163-172
'60. (MIRA 13:8)

1. Leningradskiy elektrotekhnicheskiy institut im. V.I.Ul'yanova
(Lenina).

(Plasticity)

CHERNENKO, M.I. (Leningrad)

Propagation of plastic deformation caused by a considerable durability
of a longitudinal impact. Izv. AN SSSR, Otd. tekhn. nauk, Mekh. i mashinostr.
no. 3: 158-160 My-Je '61. (MIRA 14:6)

(Deformations (Mechanics))

26.2051

9.7200

39029

S/105/62/000/007/004/004

E200/E135

AUTHORS: Chernenko, M.I., Candidate of Technical Sciences, Docent;
and Shiniberov, L.P., Candidate of Technical Sciences,
Docent.

TITLE: Function generators based on double-fed rotating
transformers

PERIODICAL: Elektrichestvo, no.7, 1962, 66-70

TEXT: Analogue computer function blocks are proposed for
carrying out the operations:

$z = x^2$; $z = \sqrt{x}$; $z = k/x$; $z = xy$; $z = x/y$.

The AC circuits proposed, in contrast to units now in use, do not
require amplifiers or servomotors for their operation. The
characteristic feature of the circuits used is the fact that:
a) the stator windings of the rotating transformers are connected
in a bridge circuit; b) the machines are fed with current from
both the stator and rotor side simultaneously. Fig.1 shows a
squaring circuit based on rotating transformers; Fig.2 shows a

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Function generators based on ...

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multiplier-divider unit based on rotating transformers. Here U_1 is the exciting voltage fed from the power grid to the stators; U_3 is the input voltage fed to the rotors; U_2 is the output voltage of the squaring circuit; U_1' is again an exciting voltage from the power grid; U_2' is equal to $U_1 \cdot U_2$ (when multiplying U_1 is no longer a constant exciting voltage but one of the multiplication factors). The principles of double-feed operation of rotating transformers are analysed. At the present stage of development the deviation of experimental from theoretical data does not exceed 1 - 2%. Experiments indicate that it is always possible to select exciting voltages and ranges of variation of the input quantities in such a way that the desired functional relationships are observed with good accuracy. These functional units are convenient for long-term operation and their working ranges may be extended beyond the present 15 - 60 V. Further work along these lines should lead to an increase in the precision of such functional units. The functional generators, consisting of two or four standard elements (rotating transformers) each, may find a wide application in analogue computers and

Card 2/4 3

Function generators used on ...

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E200/E135

AC servo-systems, since they do not require modulators,
demodulators, amplifiers and servomotors.

There are 8 figures.

ASSOCIATION: Leningradskiy elektrotekhnicheskiy institut im.
V.I. Ul'yanova (Lenina)
(Leningrad Electrotechnical Institute imeni
V.I. Ul'yanov (Lenin) X

SUBMITTED: October 7, 1961

Card 3/13

CHERNENKO, M.I., kand.tekhn.nauk, dotsent; SHINIBEROV, L.P., kand.tekhn.nauk,
dotsent

Functional converters using repeater transformers with double
feed. Elektrichestvo no.7:66-70 JI '62. (MIRA 15:7)

1. Leningradskiy elektrotekhnicheskii institut imeni V.I.
Ul'yanova (Lenina).

(Electronic calculating machines)
(Electric transformers)

CHERNENKO, M.I.; SHINIBEROV, L.P.

Device for the multiplication and division of stresses with
rotating double-feed transformers. Izv.vys.ucheb.zav.; prib.
5 no.5:75-80 '62. (MIRA 15:9)

1. Leningradskiy elektrotekhnicheskiy institut imeni
V.I. Ul'yanova (Lenina). Rekomendovana kafedroy fiziki.
(Calculating machines)

S/146/62/005/005/009/016
D201/D308

AUTHORS: Chernenko, M. I. and Shiniberov, L. P.

TITLE: Arrangement for voltage multiplication and division
by double supply rotary transformer

PERIODICAL: Izvestiya vysshikh ichebnykh zavedeniy. Priborostro-
yeniye, v. 5, no. 5, 1962, 75-80

TEXT: The authors describe the principle of operation of a simple arrangement for direct multiplication and division of voltages of same frequency and phase. It consists of four standard type rotary transformers, it has no amplifiers and output motors. The stator windings in the arrangement are connected to form a bridge circuit and separate supplies are used for stators and rotors. The transformers are paired, each pair having a turns ratio different from the other. By suitable choice of a.c. and d.c. supply voltages the arrangement is made to produce at the output either the product or a ratio of voltages. The arrangement has been experimentally tested and was found to have an error better than 2%

Card 1/2

Arrangement for voltage ...

S/146/62/005/005/009/016
D201/D308

within the voltages range from 15 to 55 V and operated continuously for 10 to 12 hours has shown no heating effects in transformers. There are 5 figures.

ASSOCIATION: Leningradskiy elektrotekhnicheskiy institut imeni V. I. Ul'yanova (Lenina) (Leningrad Electrical Engineering Institute im. V. I. Ul'yanov (Lenin))

SUBMITTED: March 6, 1962

Card 2/2

CHERNENKO, M.I.; YAKOVENKO, L.T.; RESHETNYAK, K.K.; SHINDIKOVSKIY, V.I.

Antierythrocytic antibodies and their significance in autoaggressive diseases of the blood system and other systems of the body. Gemat. i perel. krovi 1:228-230 '65. (MIRA 18:10)

1. Khar'kovskiy institut perelivaniya krovi.

CHEKHOV, M.S.

PANCHENKO, M.P.; PODALYAK, A.A.; CHEKHOV, M.S., dots., red.

[Study economic development in the U.S.S.R. and the people's
democracies] Naukhyt'ne ekonomichne pidnezennia v SRSR i krainakh
narodnoi demokratii. Kyiv, Vyd-vo Kyivs'koho derzh. univ. im.
T.H.Shevchenka, 1956. 31 p. (MIRA 11:3)

(Russia--Economic conditions)

(Europe, Eastern--Economic conditions)

(China--Economic conditions)

Chernenko, M.S.

SUKHOPAL'KOV, O.V.; ~~CHERNENKO~~, M.S.; YASTREMSKIY, I.S. [Iastrens'kyi, I.S.],
red.

[Tasks of the sixth five-year plan in industries of the U.S.S.R.]
Zadannia shostoho p'iatyrichnoho planu v haluzi promyslovosti
SRSR. [Kyiv] Vyd-vo Kyivs'koho derzh.univ. im. T.H.Shevchenka,
1956. 47 p. (MIRA 11:3)
(Russia--Industries)

CHERNENKO, Mark Semenovich, kand.ekon.nauk; CHUKHNO, A.A., red.; CHAKHOVIY, M.M., red.

[Leninist principle of democratic centralization in the management of the national economy] Lenins'kyi pryntsyp demokratychnoho tsentralizmu v upravlinni narodnym hospoderstvom. Kyiv, 1958. 45 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrain's'koi RSR, Ser.2, no.2) (MIRA 12:3)
(Russia--Economic policy)

STUPNITSKIY, Ivan Stepanovich [STUPNITSKIY, Ivan Stepanovich], ; ~~CHERNENKO~~
M.S., dots. otv. red.; ORLIK, O.L. [ORLYK, O.L.], red.; KHOKHANOVSKAYA,
T.I. [KHOKANOVSKAYA, T.I.], tekhn. red.

[Growth of labor productivity in industry; according to materials
of machinery manufacturing enterprises of the Ukrainian S.S.R.]
Produktyvnist' pratsi i shliakhy ii zrostantia v promyslovosti;
na materialakh mashynobudivnykh pidpriemstv URSR. [Kyiv] Vyd-vo
Kyivs'koho derzh. univ. im. T.H. Shevchenka, 1958. 106 p.

(MIRA 11:10)

(Ukraine--Machinery industry--Labor productivity)

CHUKHNO, Anatoliy Andreyevich, kand. ekonom. nauk; CHERNENKO, M.S., dots.,
otv. red.; SKRIPNIK, V.T., red.; MATVIICHUK, O.A., tekhn. red.

[Principle of material self-interest and the communist attitude
toward work] Pryntsyp material'noi zainteresovanosti i komuni-
stychne stavlennia do pratsi. Kyiv, 1961. 51 p. (Tovarystvo dlia
poshyrennia politychnykh i naukovykh znan' Ukrain's'koi RSR. Ser.1,
no.17) (MIRA 14:11)

(Work)

(Wages)

CHUISTOV, V.M., kand. ekon. nauk; CHERNENKO, M.S.; KRASNOKUTSKAYA,
O.I.[Krasnokuts'ka, O.I.]; DROSOVSKAYA, L.I.[Drosovs'ka, L.I.];
MOKIYENKO, B.F.; DARAGAN, M.V.[Darahan, M.V.]; OGANYAN, G.A.
[Ohanian, H.A.]; TERESHCHENKO, I.P.; KRUGLIKOV, B.I.[Kruhlikov,
B.I.]; KOROID, O.S., otv. red.; IVAN'KOV, M.D., red.;
KADASHEVICH, O.O.[Kadashevych, A.A.], tekhn. red.

[Socialist reproduction of the means of production] Sotsiali-
stychne vidtvorennia. Kyiv, Vyd-vo Akad. nauk URSR, 1962. 298 p.
(MIRA 15:12)

1. Akademiya nauk URSR, Kiev. Instytut ekonomiky. 2. Chlen-
korrespondent Akademii nauk Ukr. SSR (for Koroid). 3. Institut
ekonomiki Akademii nauk Ukr. SSR (for all except Koroid, Ivan'kov,
Kadashevich).

(Economics)

ACCESSION NR: AP4044899

S/0032/64/030/009/1106/1109

AUTHORS: Shinyayev, A. Ya; Bondarev, V. V.; Chernenko, M. S.

TITLE: Study of the mutual diffusion of metals by weakening of radioactive radiation

SOURCE: Zavodskaya laboratoriya, v. 30, no. 9, 1964, 1106-1109

TOPIC TAGS: diffusion annealing, radioactivity measurement/ TM 20 radiation counter

ABSTRACT: The authors propose a method for studying the chemical composition of zones of mutual diffusion. This method is based on the weakening of intensity of a narrow beam of gamma rays from a steady source. The principle requires a very narrow but intense beam of radiation, a means of positioning the specimen with great accuracy (within a few microns), and a maximal suppression of background in the counter (from scattering of electrons and gamma rays). A special apparatus was designed to meet these requirements. The radiation source was Tel^{127} . For detection, a TM-20 counter was employed. A supplementary lead shield, 10 mm thick, was used to cut down on background noise. Diffusion pairs of Ti-Mo and Ti-Ni were studied, and the results are shown graphically in Fig. 1 on the

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ACCESSION NR: AP4044899

Enclosure. These results show that the weakening of a narrow beam of gamma rays may be used to analyze composition in the diffusion zone between metals when these metals are perfectly or partially soluble in each other. Quantitative determination requires diffusion annealing at a given temperature. The time of annealing must be chosen so as to give a diffusion zone 100 microns or more wide. Data on distribution of diffusing elements may be used to compute all diffusion characteristics of the mutual process. A major advantage of the method is the possibility of studying all elements in the periodic system, including the light elements. Orig. art. has: 3 figures and 3 formulas.

ASSOCIATION: Institut metallurgii im. A. A. Baykova (Institute of Metallurgy)

SUBMITTED: 00

ENCL: 01

SUB CODE: MM, NP

NO REF SOV: 004

OTHER: 003

Card

2/3

ACCESSION NR: AP4044899

ENCLOSURE: 01

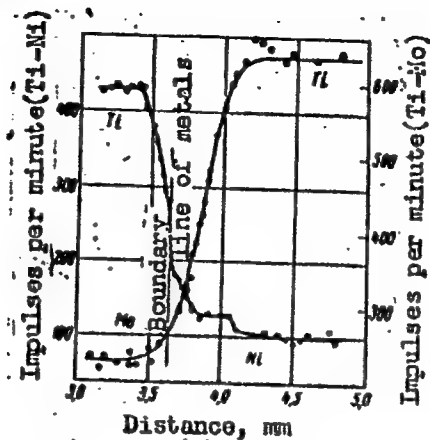


Fig. 1. Weakening in intensity of gamma rays on passing through different segments of the diffusion zone of Ti-Mo (annealed at 850C, 380 hours) and Ti-Ni (annealed at 743C, 2 hours).

Card 3/3

L 7990-66 EWI(m)/EWP(w)/EPF(c)/EWP(v)/EWP(j)/T - VM/EM/RM

ACG NR: AP5026547

SOURCE CODE: UR/0286/65/000/019/0095/0095

AUTHORS: Solov'yev, M. V.; Chernenko, M. S.

ORG: none

TITLE: A method for gluing on resistance strain gauges. Class 42, No. 175298²⁴
/presented by the Enterprise of the State Committee for Defense Technology SSSR
(Predpriyatiye gosudarstvennogo komiteta po oboronnoy tekhnike SSSR)/¹⁵

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 95

TOPIC TAGS: strain gage, automation, measuring instrument

ABSTRACT: This Author Certificate presents a method for gluing resistance strain gauges onto a detail with the shape of a solid of revolution. To mechanize the process of fixing the strain gauges, the latter are glued onto a base the underside of which is fixed to a plate. The surface of this plate corresponds to the developed surface of the part. Scribe marks on the surface of the part indicate where the strain gauges are to be glued. The glue is applied to the part, the latter is pressed to the plate with the strain gauges and is revolved, while both the part and the plate are moved rectilinearly in relation to one another.

Card 1/2

UDC: 620.172.216

L 7990-66

ACC NR: AP5026547

SUB CODE: IE/ SUBM DATE: 08Jul63

nw
Card 2/2

RICH, Val.; CHERNENKO, Mikh.

Thermal piercing. Izobr.1 rats. no.4:25-27 Ap '60. (MIRA 13:6)
(Boring)

CHERNENKO, N.

Four new records. Kryl.rod. 6 no.4:10 Ap '55. (MIRA 8:9)

1. Starshiy inspektor-letchik obkoma Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu, g. Kaliningrad
(Airplanes--Models--Competitions)

1 5-572-55
ACCESSION NR: AP5019260

AUTHORS: Chernenko, N. (Director)(Moscow oblast)

TITLE: Drying grain by active ventilation

SOURCE: Kolkhozno-sovkhoznoye proizvodstvo RSFSR, no. 7, 1965, 10-12

TOPIC TAGS: dryer, grain growth, wheat, cleaner, OS 4.5, grain cleaner, OPS, fan, OVP, cleaner, OS 4, loader, TG

ABSTRACT: The apparatus used in drying grain by heated air are described. Preliminary drying by cold ventilation was applied to the temporarily stored grain to preserve its germinating ability. Test by the inability of the cleaning-drying cleaners, two OPS-1 towers, a system to process all of daily amounts of the VM-100 fan blowing air under a wooden thick, previously passed through an OVP. Card 1/2

L 62573-65

ACCESSION NR: AP5019260

Air moving through the grain removed the
drying assembly consisted of a heat gun
wooden air distributing gates covered
To the one-bin driers having 45-50 m
a separate air duct was added to in
dried in one bin, the second chamber
temperature was maintained at 5 to 10 °C
This process was used in the drying of
flax. After drying their moisture con
96 to 99% in spicates and from 95 to
figures.

ASSOCIATION: Sovkhoz "Pervomayskoye" (Cib)

SUBMITTED: 00

NO REF S.V. 000

Card 00

CHERNENKO, N.

Our obligations, Kryn. rod. 9 no.2:11 F '58.

(MIRA 11:2)

1. Nachal'nik Kaliningradskogo neshtatnogo aviasportkluba.
(Kaliningrad--Aeronautical societies)